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Laura Candiottio¹

Epistemic emotions. The building blocks of intellectual virtues

Abstract

Discussing the notion of “epistemic emotions” as proposed by Morton (2010), and his argument for which intellectual virtues will be “hard to attain” without those emotions, I introduce the thesis for which epistemic emotions constitute one of the building blocks of intellectual virtues, in order to provide an explanation of the cognitive process that binds the two. Epistemic emotions are building blocks, as: (1) motivational component and (2) transformative component, and they assay their causal role as necessary components (but not sufficient) of intellectual virtues. Framing the argument within virtue responsibilism, I explain the machinery that leads from epistemic emotions to intellectual virtues, and then from those to affective abilities, stressing the role of training in the process of transformation of the agent in the epistemic journey. Affective abilities, as the refined epistemic emotions that are ready to use within the practice of intellectual virtues, are the secure and beneficial dispositions that enhance the responsible practice of cognition.

Keywords

Epistemic emotions, Virtue responsibilism, Training

*While everyone would agree that anger or envy
can have a role in explaining our epistemic failings,
few theorists insist that appropriate patterns of affective response
may be required for inquiring or believing well.
Christopher Hookway*

1. Introduction

One of the leading approaches on emotions within the contemporary debate is the one according to which emotions are appraisal, percep-

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tion, or even judgement of values, disclosing the valence of the objects toward which they are directed². In this paper, I refer to a very specific value, the value of knowledge, i.e., the object “knowledge”, recognised as something that has values for human beings. My goal is to grasp the meaning and function of those emotions that may lead to knowledge, recognised as value, and towards which the epistemic agent directs her efforts. The idea that emotions are essential to virtue is not new, and it finds its ancient roots in Aristotle’s works. Nevertheless, the debate has been centred around moral emotions, and only few studies have been devoted to those emotions that deal with knowledge.

The notion of “epistemic emotions” has been introduced in the contemporary debate by Morton (2010), and before him, as “intellectual emotions”, by Stocker (2004), or, as “cognitive emotions”, by Scheffler (1991). The definition of epistemic emotions as being those emotions that are directed at knowing is a very broad one, and the role, and even the existence, of such kind of emotions are still very controversial in the contemporary debate, more so because it questions the relationship between the affective and the cognitive systems.

I assume a well-determined approach regarding knowledge as value, i.e., the one proposed by virtue epistemology³ – and, specifically, I will refer to its character-based version, also known as virtue responsibilism, introduced by Lorraine Code (1987)⁴ – for which the intellectual virtues should not be understood as mere faculties or capacities⁵, but as those character traits that define the excellent dispo-

² Peter Goldie (2002) is seen as one of the most prominent thinkers within a branch of this model, the one that emphasises the “feeling towards” as the source of the recognition of the value. Nevertheless, it should be noted that the roots of the approach go back to the origin of the Western philosophical thought, and has noble ancestors, just think of Aristotle or Husserl. See Mulligan 2010 for a comprehensive introduction to the approach.

³ The birth of this field of study is recognised in the article written by Ernest Sosa in the early 1980s (Sosa 1980), where he suggested an account on justified true belief, based upon intellectual virtues.

⁴ See also Kavnvig 1992, Montmarquet 1993, Hookway 2000, Baehr 2011, and especially Zagzebski (1996), who provided the first systematic account of the character-based approach.

⁵ These are the intellectual virtues as understood by the virtue reliabilists. See Axtell (2000) for a brief introduction about the differences between the two models.

sitions of a responsible epistemic agent. Thus, in order to grasp the role of epistemic emotions, my focus will be directed to the clarification of the relationship between epistemic emotions and intellectual virtues within the knowing processes.

In this approach, the value of knowledge and the possibility of its achievement are dependent upon the abilities and character traits of the epistemic agents. Even if this approach lends a strong value to intellectual virtues, and not explicitly to emotions, it nevertheless seems the best choice to unlock the analysis towards epistemic emotions and affective abilities. In fact, I noticed that within the virtue epistemology literature, there are some intriguing synonyms – specifically, two examples. We refer to curiosity both as an epistemic emotion as well as an intellectual virtue or, in the case of courage, we just add the adjective “intellectual” to courage, in order to make it an intellectual virtue and not just an emotion. These synonyms may mean many things, from hiding a lack of analysis – understanding as synonyms, two things that are not the same – to an error of classification; are we sure, for example, that curiosity is an intellectual virtue and not an epistemic emotion, or simply that the synonymy is not perceived, in this case, as problematic?

As Morton (2010) has noticed, the words often do triple duty and, thus, we may have a curious character moved by the emotions of curiosity who, performing her cognitive acts, also engages in curiosity as an intellectual virtue. Nevertheless, I think that this synonymy among curiosity as a character trait, curiosity as a quality of action, and curiosity as an intellectual virtue may create confusion. Most important for my topic, it may dismiss the epistemic role of the emotions within virtue epistemology since it will focus on curiosity as an intellectual virtue only.

In fact, I do not think – as the forthcoming revised version of the lemma dedicated to virtue epistemology in the SEP⁶ – that it is uncontroversial to say that many virtues are emotional dispositions,

⁶ See Alfano, Greco, Turri (forthcoming). Zagzebski (1996: 131) has recognised, for example, the emotions characteristic of the virtue of courage that motivates acts of courage, but she says that they have no name. She has also claimed that the “common vocabulary is misleading” (1996: 106), recognising that the same term may be used for virtues, skills, and emotions. Alfano (2016), on the other hand, has suggested to index virtues, thanks to the emotions they govern, precisely because it is easier, in his opinion, to individuate emotions than virtues.

precisely because many practitioners deny, or at least do not explicitly state, the existence of these kind of epistemic emotions. Moreover, and I will come back to it in due course of time, they risk not taking into consideration the impact that the affective engagement may have for the understanding of the embodied and embedded dimension of the epistemic practices⁷.

Therefore, my aim is to uncover and reveal the relationship between epistemic emotions and intellectual virtues within the character traits of the epistemic agent, using the hypothesis that epistemic emotions and intellectual virtues are two different things. Specifically, I will explain the process that leads from emotions to intellectual virtues, and from them to affective abilities. In fact, if a lot has been said about the connection between intellectual virtues and belief-building (Hookway 2003a), it is not the same for the first segment of this cognitive machinery.

First, I will fine-grain the notion, detecting the role of epistemic emotions within the knowing and the development of the epistemic character of the agent. Next, underlying the differences between epistemic emotions and intellectual virtues, I would explain the machinery between them, lighting on the procedure that leads from one to the other. Finally, analysing the ontogenesis of intellectual virtues, I will introduce the notion of affective ability as the result of a good epistemic training. Therefore, the procedure that leads from epistemic emotions to intellectual virtues, and from them to the affective abilities, will be recognised as the one that integrates emotions within the knowing process.

2. The intellectual virtues' components

For Zagzebski (1996: 137), intellectual virtues have two components, the motivational and the success ones, the first leading to produce a certain desired end, which is knowledge, and the second establishing the reliable success in bringing about that end. These components

⁷ This is true if we would recognise that bodily feelings are associated with emotional experiences and, thus, also to the epistemic ones. On the somatic states involved in cognitive processes, see Damasio 1994. On the embodied appraisal theory, especially regarding how moral values are based on emotional responses, see Prinz 2004.

that refer to the Aristotelian characterisation of moral virtues pertain to the intellectual ones because, in Zagzebski's account, intellectual virtues are character traits and dispositions, exactly as the moral ones⁸. As underlined by Roberts and Jay Wood (2007: 72), intellectual motivation and dispositions to epistemic success are part of the excellent intellectual life as a whole. As is well known, one of the key characteristics ascribed to emotions is to be a motive for action, and, in our specific case of epistemic emotions, a motive for the act of knowing. Arguably – I introduce it here and I will come back to it later on – we cannot embrace the division that states that the intellectual virtues are for thinking and the moral ones for character, because it is precisely in the education of the character that both, the moral and the intellectual virtues, are trained and acquired. Moreover, the distinction between practical and theoretical ends diminishes, in the acknowledgement that the same thinking is an activity pursued because the agent identifies the value of its fulfilment as knowing.

We may detect the epistemic role for the emotions in the motivational component within Zagzebski's analysis of the intellectual virtues' components, specifically as the natural energy of the motivational component. In this way, epistemic emotions may be understood as the motives towards which the agent gives value, i.e., the knowledge⁹. Moreover, Zagzebski's account exposes a second meaning, more specific for virtue epistemology: epistemic emotions as steps for the development of the epistemic character as an excellent knower. The question is: what constitutes their action? Shouldn't be they at work here *per accidens*, or as side-effects? Have the epistemic emotions a beneficial role *per se* within those components that enable the excellence of the cognitive agent, and thus, reaching cognitive success?

⁸ In fact, for Zagzebski, moral and intellectual virtues should not be split, as Aristotle did, because they do not differ in their ends, i.e., the flourishing of the agent through knowledge and right actions. Also, Roberts & Jay Wood (2007) are against a strict dichotomy between moral and intellectual virtues. They have argued for the concern-based construal account of the emotions, for which emotions have a deliberative character – they are based on the will – and act as motives for. On the other side, for the necessity to distinguish them following the Aristotelian account by the practical or theoretical ends, see Annas 2003.

⁹ Epistemic emotions may be motives by themselves or enabling condition for the production of other motives.

These questions, *in nuce*, are constrained within their limitations and serve as the background of the inquiry. As introduction, I believe that one of the merits of the contemporary research within character-based epistemology is to challenge the idea of avoiding the personal and subjective traits of the agent to attain knowledge. On the contrary, stressing that it pertains to certain traits – recognised as intellectual excellences – to lead the agent to knowledge, this venue of research opens the door to further inquiries on the features and components of these excellences and their relevance for knowledge. My thesis is that the existence of epistemic emotions precisely constitutes one of these components. Therefore, the necessity to question the supposed harmful status of the emotions emerges clearly, since they are one of the components of what is recognised as excellent, i.e., intellectual virtues as the character dispositions to think well.

It might be objected that intellectual virtues have to fight against one of their components recognised as being disadvantageous. I do not think this is the case and I'm going to explain why throughout the paper, in particular, discussing Morton's argument, and introducing the notion of affective ability. As preliminary reply to the objection, I can say that this does not mean that there aren't cases in which the intellectual virtues arise from a battle within contrasting emotions or, also, cases where it is definitely the performance of the virtue that makes the emotional component virtuous¹⁰. But this recognition is not something that invalidates my approach since, on the contrary, it reinforces the idea for which we should train the epistemic emotions in order to harmonise them to virtue and stabilise their power within the process.

3. From epistemic emotions to intellectual virtues

Morton (2010), has underlined the connection between epistemic emotions and intellectual virtues and, explaining the process, has claimed that it is difficult for a human being to act virtuously without

¹⁰ A very interesting example is the one of shame as a component of modesty and intellectual humility.

epistemic emotions; however, there is no necessity for it¹¹. Thus, what he argues for is not a “necessity thesis” on the role of epistemic emotions for intellectual virtues, but a softer version of it that states that it would be very difficult to achieve intellectual virtues without epistemic emotions; however, in the meantime, it will not be impossible.

First of all, what is evident in this argument is the difference between the phrases “hard to do without” and “necessary with”. This argument is based on the phenomenological recognition that there are few cases in which the intellectual virtues may arise emotionlessly. In fact, arguing for this softer implication between epistemic emotions and intellectual virtues, he identifies those cases in which people think and know virtuously (i.e., with intellectual virtues) and without being pushed by epistemic emotions, as in the case of the well-trained and excellent young scientist who does not care about the subject. I agree with him on this example, and recognise that in very specific cases it is even best to not be moved by certain emotions – as for the cold mind of a surgeon required to perform her professional task, and the consequent denial to operate on members of her own family, because emotions may affect her mind. Nevertheless, I think that these are very specific cases as exceptions to the “necessity thesis”. In fact, as the same Morton has acknowledged, “the normal human operation of many virtues involves the activation of emotions that move the agent to the required pattern of action” (Morton 2010: 394), i.e., the practice of her intellectual virtues as an epistemic ability.

Thus, the difference between “harder without emotions” and “necessary with emotions” resides in the attempt to not exclude the counterexamples that, nevertheless, do not depict the normal way of acting, where “normal human beings would find it hard to sustain the virtue if they were not capable of emotion” (Morton 2010: 394). I think that here we should not understand “normality” as the opposite of pathological cases, but as a way to say that, in most of the cases, intellectual virtues follow epistemic emotions. Therefore, I propose to understand Morton’s argument as an argument based on statistical evidence, stating that in most cases it is more probable that an intel-

¹¹ “[...] there are emotions that play an important and hard-to-replace role” (Morton 2010: 386); “[...] the absence of epistemic emotion seems to make things harder rather than impossible” (Morton 2010: 391).

lectual virtue is dependent on an epistemic emotion than the contrary, and the cause of it depends, in Morton's view, on our biological constitution as human beings.

Even if I agree with Morton in most of his arguments, I cannot state, as he does, that in the cases he offers as exceptions – we take the one of the young scientist that, later on in Morton's paper, is depicted as a young chemist that investigates for a carcinogen in baby bottles – the agents may not feel any emotions at all, even if they are demonstrating their intellectual virtues. On the contrary, I think that it is necessary to recognise that they were moved by other motives, for example: the ambition to develop their career, as the scientist is depicted in the first case; or the responsibility towards the citizens' health, in the second.

Finally, analysing these cases, the crucial question about the conceivability of emotionless intellectual virtues arises. My first answer is that it is very implausible to conceive emotionless intellectual virtues, but this does not mean that emotions should be at work every time that one specific intellectual virtue is at work, since intellectual virtues, in the expert cognitive agent, become an intellectual habitus. In fact, the habitus prevents the organism from using a large amount of energy at any time the activation of a virtue is needed. At the same time, however, the habitus has been built by the reiteration of the pattern of emotions, combined with other skills and abilities. The habitualisation and sedimentation of epistemic emotions into intellectual virtues arise through the exercise and the training, as I will explain, depicting affective abilities in section five, and it is consistent with the core idea of character-based virtue epistemology, for which knowing is an exercise through which the agent develops her intellectual skills. My point here is that the habitualisation of epistemic emotions should be understood within this process too. Thus, an excellent and expert epistemic agent would know if she needs to activate the required epistemic emotions as affective abilities, at the right time, in the right place, and in connection with other skills.

Consider the example of the very passionate teacher who, after many years of teaching, does not feel the "fire of the passion" for teaching in the present moment as she did when she was young; nevertheless, she is able to enthusiastically involve the students in the lessons. One of the abilities of this expert teacher, thus, will also be the reactivation of certain affective abilities, if she would need them, for a certain and specific situation. If she would not need them,

her ability will enable her to proceed anyway, being moved by her excellent habitus. This example shows that the recognition that some specific epistemic emotions are not at work in the actual performance of the intellectual virtue in certain cases does not mean that they are not a component of it. In fact, they are available as affective abilities, and ready to enact in certain cases, as I will argue in section five.

Coming back to Morton's example about the young scientist, and to the fact that not having activated the specific epistemic emotion connected to the specific intellectual virtues does not mean that the agent is emotionless, I have also noticed that certain intellectual virtues may be activated by despicable emotions or aspirations. I may imagine, in fact, that it is not curiosity, love for truth, or epistemic worry that activates the young scientist's intellectual virtue of scrutiny and careful attention towards the production of scientific data, but maybe her ambition, or even her insecurity, that makes her seek the approval of her boss¹². Therefore, we should recognise that our agency is moved by different, and sometimes contrasting, causes, each one bringing their emotional component¹³. Nevertheless, cases such as this do not show that a specific intellectual virtue arises from a vicious emotion, i.e., there is no causal relationship between them, but only that this specific intellectual virtue, trained within the exercise of its proper emotions, is at work here, within a context where the emotions at play are not the ones that constitute it, but others. Moreover, it should be noticed that one specific intellectual virtue may be built and activated by different epistemic emotions, arising from the contexts.

Morton's argument also leads to another topic, very important for my aim, and to which I will come back in the last section. In fact, Morton has underlined the ethical stance involved in the process, saying that the enquiry, based on emotionless virtues, would tend to be less disinterested than many of the others. In this way, his argument

¹² In the meantime, we should be aware that certain skills that seems emotionless may be supported by the emotions. For example, empirical studies have provided evidence for the relationship between emotions and attention, in particular regarding the role of emotions in making things salient for us. See Brady 2013.

¹³ Aristotle, one of the fathers of virtue epistemology, while exploring the relation of the rational and the irrational parts of the soul, found a broad range of overlap around their borderline (or better, border-region), where emotions communicate with concepts, building, on my reading, rationality.

based on static evidence, as I have called it, implies not only what is more natural for knowing, but also what is best, or what is most desirable for the production of the right epistemic practice. Thinking well, thus, is not only thinking properly but also thinking responsibly, as the binding between intellectual and moral virtues highlights. I notice that this ethical outcome of Morton's argument underlies the value of emotions, as useful and beneficial, for the well and right development of the epistemic character, and the responsibility towards our emotions emerges here as a crucial issue¹⁴.

The meaning of epistemic responsibility emerges clearly in the second situation reported by Morton, the one in which the young scientist reveals herself as a chemist dealing with health issues, Morton has claimed that "one can exercise the virtue of epistemic responsibility without experiencing any emotion" (Morton 2010: 395). I disagree with this claim, because a notion of either moral or epistemic responsibility, but which lacks minimal care for the others, signifies absolutely no responsibility. It is true that in deontological ethics, the imperative of following the rules does not arise from the recognition of the fellows' sympathy as for moral sentimentalists. However, it does not necessarily imply that one of the motivations, unless not the major, that lays down responsible actions, is not the care for the others. Therefore, if we would accept that care, at work in the practice of virtue, has an intrinsic emotional component, and that ethics, as care for the others¹⁵, is at the ground of responsibility, it follows that, unless the performance of responsible acts of care may be motivated by reasons other than emotions, responsibility, both moral and epistemic, should not be understood outside the ethical horizon.

The ethics of knowledge has been studied a lot in the recent years, particularly regarding epistemic injustice and epistemic culpability. Remarkably, Miranda Fricker (2007) has argued for an ethical account of epistemic practices, stressing the fundamental role performed by training, for example of testimonial perceptual capacity or sensibility. Moreover, she has stressed the responsibility we need to endorse in the judgement building (Fricker 2016). Regarding what I'm

¹⁴ Regarding this meaning, see Stocker 2004: 136-7. This specific notion of intellectual emotions as something valuable for knowledge seems dependent from one of the most established definition of emotions as judgment of value, instantiated, for example, by Nussbaum 2004.

¹⁵ I assume here the meaning of ethics as "care for others" from feminist care ethics (see Gilligan 1982, Noddings 1982).

arguing here, this is meaningful, because it underlies the importance of the training of the epistemic character and, therefore, of the responsibility towards the components that constitute her intellectual virtues. For Stocker (2004: 139), one of the functions of the epistemic emotions¹⁶ is exactly the one that characterises the sort of person who is doing something, and thus, regarding our example, to become a responsible epistemic agent.

4. Epistemic emotions as one of the building blocks of intellectual virtues

It follows that epistemic emotions build the character of the epistemic agent. This is my main thesis. They are not only the motives that lead her to act in certain ways and in certain circumstances¹⁷, but they are at work within the agent as one of the building blocks of her intellectual virtues. Since intellectual virtues are character traits, thus epistemic emotions, as component of the virtues, are at the ground of the character and helps constitute it – or transform, as I will say later – as a proficient knower.

The notion of affectivity as background is well depicted by psychoanalysis (Stocker 2004: 137) and by enactivism (Colombetti 2014), for which, for example, affectivity is the primordial way in which an organism acts, knows, and decides, in a certain environment. The neuroscience of emotions has demonstrated that in any normal situation emotions are constitutively intertwined with cognitions¹⁸ and,

¹⁶ For Stoker, the other primary function of epistemic emotions is to help make the doing of something good for the person doing it. Stoker called them “intellectual emotions”, stressing the connection between intellectual emotions and agency. He has not only underlined the more common functions of these kind of emotions as cause, aspiration, evaluation, and value, but also their valence in the constitution of the value of the actions performed by an epistemic character. Emotions, in fact, “are not just features of everyday, healthy, and good life, but also that they help make everyday life – indeed everyday intellectual life – healthy and good” (Stocker 2004: 144).

¹⁷ The literature about the notion of “emotions” as “motives” is very wide and well-established, and it has to do with the idea that the role of the epistemic emotions may be the one to make a topic salient because they disclose its value. Regarding the notion of emotions as motives, see de Sousa 1987.

¹⁸ Recently the interactional model has been replaced by the integrational model (Gray et al. 2002) for which emotions and cognition are fully integrated within certain processes, as learning, perception or memory. This integration for Sten-

specifically for my aim, it has underlined the primacy of emotions (LeDoux 1996) of over reasoning, for which they possess the “capacity to precede and cause particular lines of thought” (Franks 2006: 39)¹⁹. Nevertheless, I do not want to extend here the discussion to covert emotions or the emotional unconscious, because my aim is to clarify the conscious process of manipulation of epistemic emotions within the training of the epistemic character²⁰.

In virtue epistemology, intellectual virtues always refer to the epistemic agent, and not only to her cognitive act, or to the excellence of her epistemic character. Attaining the knowledge, in fact, depends on the epistemic ability of the agent within a specific context. It is exactly within this framework that my thesis acquires meaning. Epistemic emotions are one of the building blocks of the intellectual virtues because they are the energetic material starting from which – and in the composition with other technical skills, norms, judgements of values and aims – the agent builds patterns of action as dispositions and habits for thinking well. Within her processes of thinking as embedded and embodied, epistemic emotions are the bodily resources that make her thinking something vital for her agency. Therefore, as building blocks, they are at work within the same practice of the virtue – they are not just the primitive material that, after the refinement, is not visible anymore – as its resource.

As building blocks, epistemic emotions enable the practice of the virtue, not only as motives for action but also as steps to the education for the embodied character. They psychologically constitute the knower within the epistemic agency. In fact, as virtue responsibilism

ning (2002) is at the base of our process of reasoning and produces the implementation of cognition within affective structures.

¹⁹ This thesis is not *prima facie* contradicted by the model of the parallel system of control. LeDoux (1996), in fact, has proposed to understand emotion and cognition as separate but interacting mental functions. On the other hand, Ronald de Sousa, discussing the model of the parallel system of control, has underlined its challenge for the role of emotions in reasoning and has proposed to understand emotions as the bridge between the “intuitive” and the “analytic” system. See de Sousa 2008: 68-70.

²⁰ For Sherman and White (2003: 36) including emotions in the constitution of intellectual virtue does not require that emotions can operate consciously only. Here I am focusing on conscious emotions because I am depicting the notion of affective abilities as results of epistemic training but I agree with the authors that we could include the unconscious component of our emotional life within our analysis of intellectual virtues.

has clearly underlined, the character traits involve “a positive psychological orientation toward epistemic goods” (Baehr 2011: 102), and this orientation, in my account, is made possible by the epistemic emotions.

Claiming that epistemic emotions are the building blocks of intellectual virtues implies that they are not only side-effects within the process, but that they play a causal role in it. This means that we should not only recognise their presence in the process, but also detect in which way they cause the knowledge.

Morton (2010), denying the thesis for which epistemic emotions are just side-effects, exemplifies it, saying that curiosity “operates through a pressure on the person’s patterns of awareness, what she notices and ignores, so that it comes with a characteristic feeling” (Morton 2010: 394).

In my account, the causality in play here is not only one of the motives for action, but the one that leads to the constitution of the epistemic character in the agency through training. I propose to call this role “transformative” in order to stress the power of epistemic emotions in building a certain type of character, the epistemic one. Operating on the person’s patterns of awareness, their transformative power operates not only in the action, but also in the same structure of the character. In fact, epistemic emotions are involved in the transformation of the character’s epistemic side, since they transform the agent in a skilful knower, enabling her to develop intellectual virtues and, furthermore, perform them responsibly. Therefore, I introduce two meanings for understanding epistemic emotions as one of the building blocks of intellectual virtues: the first – the one that is more recognised by the literature and that I have analysed in the previous section – is the one for which epistemic emotions are building blocks as motivational component, and the second – the innovative one that I have introduced in this section – for which epistemic emotions are building blocks as a transformative component.

5. From virtues to abilities

Recognising epistemic emotions as the transformative power at the ground of intellectual virtues implies that they are a necessary (but

non-sufficient²¹) component for knowledge, and that their beneficial role resides exactly in their structural entanglement with intellectual virtues in the building of the successful epistemic character. In fact, if we can grasp them as facilitating conditions (but not necessary) for the practice of the epistemic virtue focusing on the motivation component, we can attain their stronger value as a builder of the epistemic character, recognising their transformative power.

Since emotions build the character, it is necessary to nurture and train them in order to make them a valuable and stable support for virtue. Intellectual virtues stabilise the epistemic emotions in affective abilities, regulating them within the pattern of decisions. In this process, intellectual virtues are intimately connected to the proper emotional functioning (Roberts and Jay Wood 2004: 4), that enables the construction of the affective abilities. Thus, the dynamic process that binds together epistemic emotions and intellectual virtues is not only the one that makes epistemic emotions one of the components of intellectual virtues, but also the one that moves from intellectual virtues to affective abilities. The machinery is, therefore, efficiently dynamic and procedural, and permits, thanks to intellectual virtues, to transform epistemic emotions in affective abilities ready for the action. In fact, thinking virtuously not only discloses epistemic emotions, but builds the affective abilities that will stably belong to the epistemic character.

By “affective abilities”, I mean those emotional capacities that, deriving from the refinement of the epistemic emotions, are ready to be used in order to enhance cognitive processes. For example, and regarding intellectual perseverance, Heather Battaly (*forthcoming*) has depicted the emotional component as a disposition to respond to obstacles with the appropriate degree of confidence and calmness, in the given context. I mean for “affective ability” what Battaly has called “disposition” since the process I am indicating is the one that makes epistemic emotions affective to those abilities ready to be used in the right time and place. In fact, affective abilities make epistemic emotions appropriate and beneficial for the cognitive task. As a side remark, I would mention that this topic is crucial for applied epis-

²¹ Epistemic emotions are not enough by themselves, think for example at curiosity as not enough for the truth-seeking (see Brady 2009). I argue that they are one of the necessary building blocks of intellectual virtues, cooperating with the other components in order to make the knower excellent.

temology, especially in education²², since it discloses the horizon of the practice of the virtue and the necessity of the training to pass from epistemic emotions to acquired affective abilities.

I argue that the notion of training is crucial for all the processes, from epistemic emotions to intellectual virtues, and from them, to affective ability. Affective ability, in fact, leads to the virtue side of affectivity, and thereby, to its excellence. The excellence is not existent by nature, but, as in the case of intellectual virtues, should be trained. Therefore, epistemic emotions are subject to the refinement of reason, in order to increase their epistemic efficacy, thus becoming affective abilities. Epistemic emotions are natural powers possessed by an embedded and embodied epistemic agent that trains them. They are not only a natural power that *a priori* leads to the knowledge achievement, but the training, as a social practice within specific cultural environments, makes them abilities that are acquired as intellectual virtues²³. Agency, in fact, discloses the social dimension of the epistemic emotions and of the intellectual practices performed by social agents²⁴.

Although Julia Annas belongs to the group of scholars who embrace the distinction between moral and intellectual virtues, for which, following Aristotle, emotions are components of moral virtues and not of the intellectual ones, she has recognised that emotions are involved in the development of an intellectual virtue as perseverance or intellectual honesty (Annas 2003: 16). Therefore, regarding her specific claim about the development of an intellectual virtue, I would argue that not only does epistemic emotion have the power to transform the character (“the transformative component”), but also that they should be transformed, through training, into abilities. As under-

²² Regarding a view of education, sensitive to connections between cognition and emotions, see Scheffler 1991 (chapter 1), and regarding applied virtue epistemology in education see Baehr 2016. On the cognitive role of emotions in learning environments see Candiotta 2016.

²³ See Kvanvig 1992 for the social/genetic epistemology.

²⁴ Alfano and Skorburg (*forthcoming*), underlying the social dimension of the practice, have stressed on the importance to develop researches on the collective dimension of the generation and training of intellectual virtues. I think that this venue of research is very promising and a combination with the researches on we-intentionality wherein group agency and collective emotions may be fruitful.

lined by Hookway (2003a), this means to allow epistemic emotions to have a role in epistemology, as they have in ethics.

Another benefit of the approach I am drawing here – i.e., the one for which epistemic emotions are the building blocks of intellectual virtues – is that it helps to understand them as the character's resources for inquiry, rather than just static belief. It follows that knowledge is the practice of knowing, and it is performed by an embodied knower that, in the action, develops her intellectual virtues.

In fact, I should be motivated to think well (epistemic emotions as motives), and I have the resource for doing this (epistemic emotions as building blocks); therefore, and thanks to the training, epistemic emotions lead the process that affirms intellectual virtues, making the agent intellectually virtuous (epistemic emotions as transformative component). Finally, they become our affective ability, ready to be reiterated in the process.

The epistemic character has the responsibility towards her epistemic emotions and to the process that makes them abilities. In this context, the notion of deliberation acquires the meaning of the right choice for self-transformation, which is to transform epistemic emotions in those abilities available for the cognitive tasks and for attaining the cognitive success. This notion is strictly connected to one of the mastery of epistemic emotions in the realm of the expertise, that I cannot develop further here.

6. Conclusion

What makes an emotion epistemic? In this paper, I specified some crucial elements within the broad definition I provided at the beginning, i.e., the one that says that epistemic emotions are those emotions that have to do with knowledge, claiming that they are epistemic in the meaning of contribution to the knowledge achievement. This is made possible for their causal role as building blocks of intellectual virtues, that I understood within virtue responsibilism to be character traits of the epistemic agent, and, specifically, are motives for the thinking (the motivational component) and the transformation of the character in a successful knower (the transformative component). In fact, this machinery, framed within the horizon of the responsible training, leads to the transformative power of the agent in proficient knower. Moreover, I understood intellectual virtues as the patterns in

which we use our intellectual skills and abilities (Hookway 2003a: 88), and, finally, I reached, among these abilities, the notion of affective abilities as the refinement of epistemic emotions through training. Therefore, affective abilities, as the refined epistemic emotions ready to use within the practice of intellectual virtues, are the secure and beneficial dispositions that enhance the responsible practice of cognition.

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